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## **CLAIMS**

- 1. A vector for enhancing the inhibition of a selected target gene within an organism, comprising a gene silencing vector characterised in that the said gene silencing vector includes a inverted repeat of all or part of a polynucleotide region within the vector.
- 2. A vector as claimed in claim 1, in which the inverted repeat sequence is a synthetic polynucleotide sequence and its inverted repeat sequence.
- A vector as claimed in claim 1, in which the inverted repeat sequence is an inverted repeat of all or part of the said gene silencing vector.
  - 4. A vector as claimed in claim 3, in which the inverted repeat sequence is an inverted repeat of the 5'-untranslated region of the gene silencing vector.
  - 5. A method as claimed in any of claims 1 to 4, in which the inverted repeat is separated from the polynucleotide region by a sequence of nucleotides.
- 6. A method of controlling the expression of a DNA sequence in a target organism,
  comprising inserting into the genome of said organism an enhanced gene silencing
  vector as claimed in any of claims 1 to 4.
  - 7. A vector for enhanced gene silencing comprising in sequence a promoter region, a 5'untranslated region, a transcribable DNA sequence and a 3'-untranslated region
    containing a polyadenylation signal, characterised in that the said construct includes
    an inverted repeat of a region of said construct.
  - 8. A vector as claimed in claim 7 in which the inverted repeat is a fragment of the 5'untranslated region of the said construct.

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- 9. A vector as claimed in claim 7 or claim 8, in which the inverted repeat is separated from the selected fragment by a sequence of nucleotides acting as a spacer.
- 10. A vector as claimed in claim 7 or 8 or 9, in which the construct includes a double copy of the inverted repeat.
  - 11. A vector as claimed in any of claims 7 to 10, in which the vector two tandem copies of the inverted repeat.
- 12. A DNA construct for the inhibition of gene expression comprising in sequence a promoter region, a 5'-untranslated region, a transcribable DNA sequence and a 3'-untranslated region containing a polyadenylation signal, characterised in that the said 5'-untranslated region is contiguous with a pair of tandem inverted repeats of said 5'-untranslated region.

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